FIG. 1

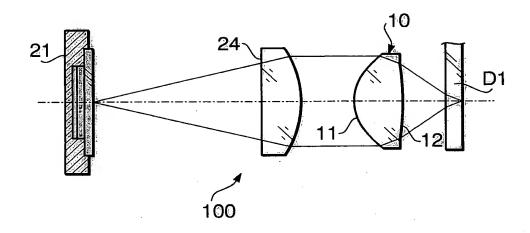


FIG.2A

FIG.2B FIG.2C

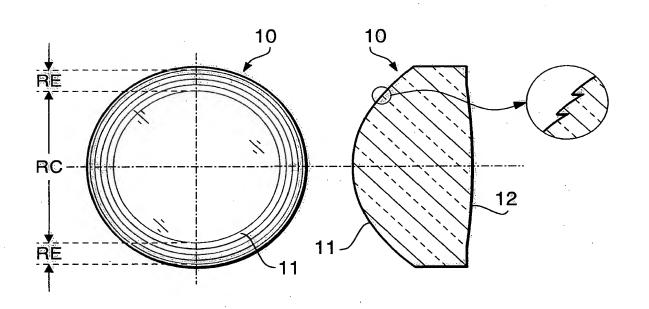


FIG. 3

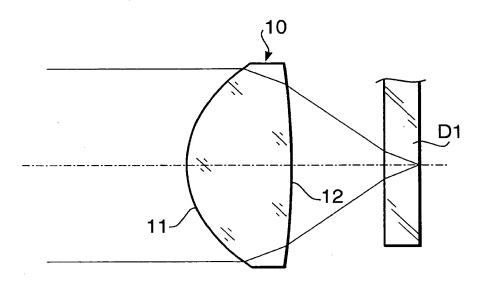
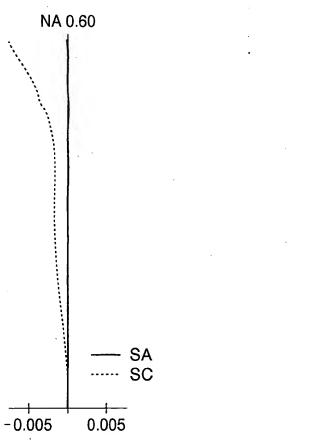
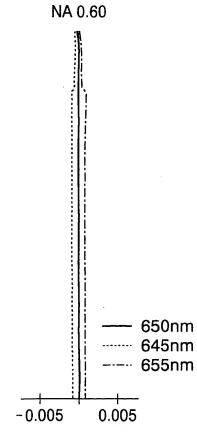


FIG.4A

FIG.4B

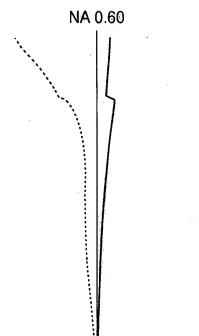


SPHERICAL ABERRATION SA SINE CONDITION SC



SPHERICAL ABERRATION **CHROMATIC ABERRATION**

FIG.5A



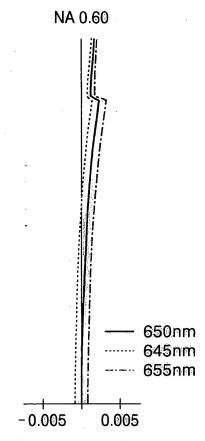
SPHERICAL ABERRATION SA SINE CONDITION SC

-0.005

0.005

— SA --- SC

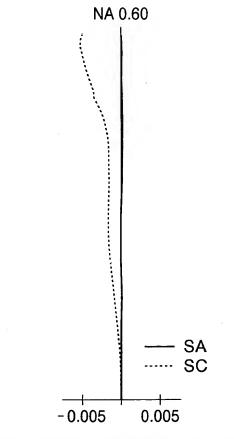
FIG.5B



SPHERICAL ABERRATION CHROMATIC ABERRATION

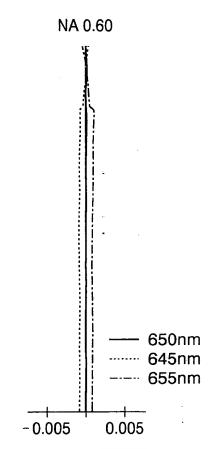






SPHERICAL ABERRATION SA SINE CONDITION SC

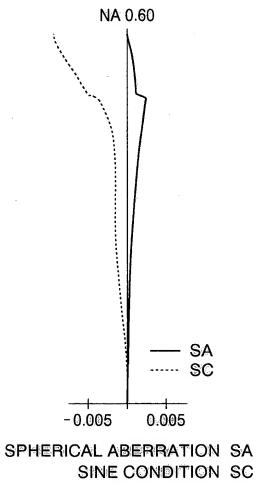
FIG.6B

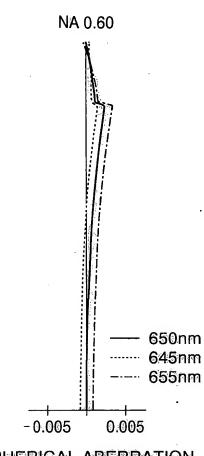


SPHERICAL ABERRATION **CHROMATIC ABERRATION**



FIG.7B

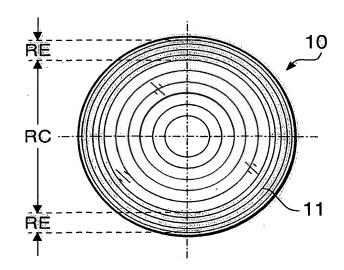




SPHERICAL ABERRATION SA

SPHERICAL ABERRATION **CHROMATIC ABERRATION**

FIG. 8



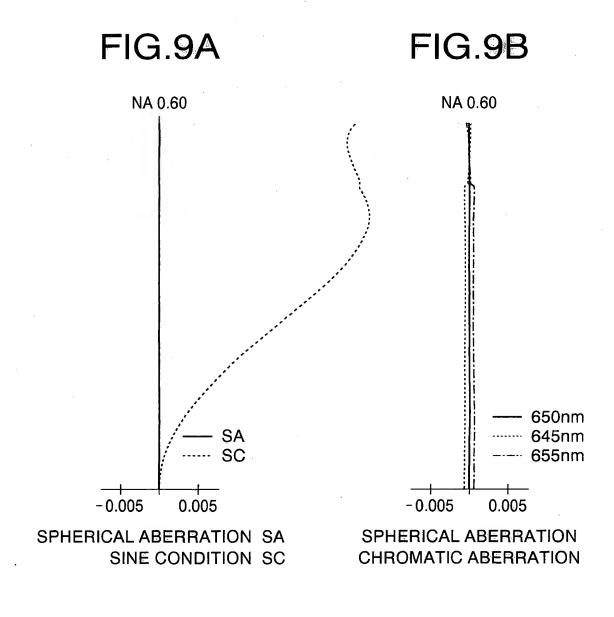




FIG.10B

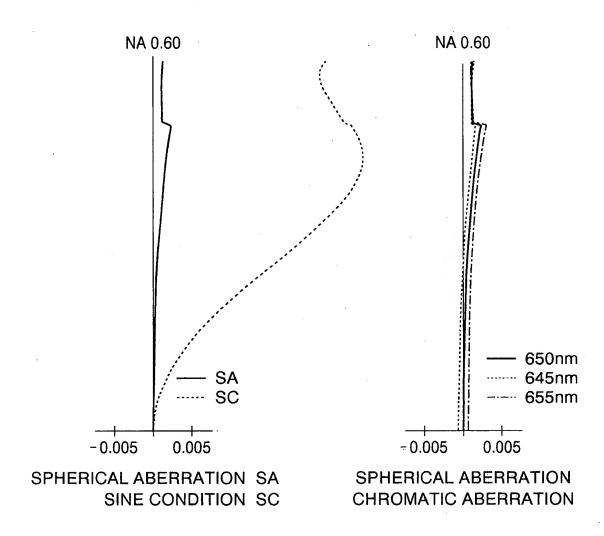


FIG.11

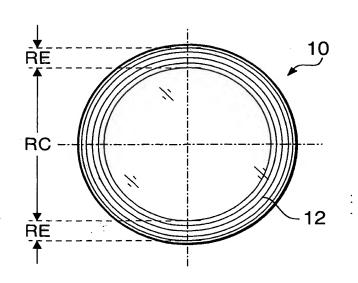
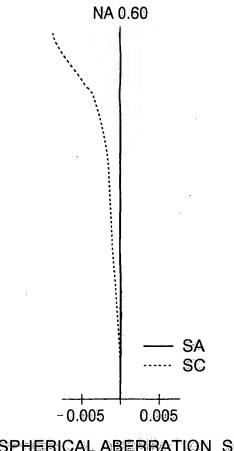
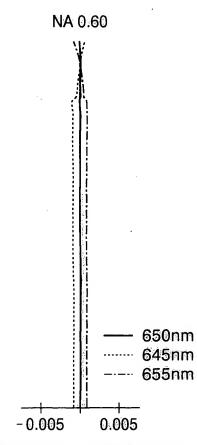


FIG.12A

FIG.128

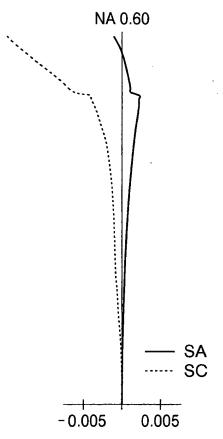


SPHERICAL ABERRATION SA SINE CONDITION SC



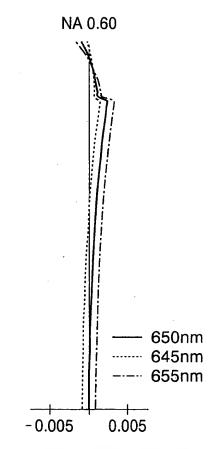
SPHERICAL ABERRATION CHROMATIC ABERRATION

FIG.13A



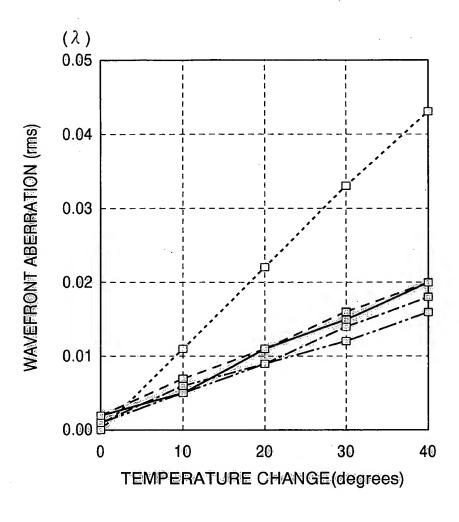
SPHERICAL ABERRATION SA SINE CONDITION SC

FIG.13B



SPHERICAL ABERRATION CHROMATIC ABERRATION

FIG.14



--- 1st EMBODIMENT

--- 2ND EMBODIMENT

- 3RD EMBODIMENT

- 4TH EMBODIMENT

····· COMPARATIVE EXAMPLE





FIG.15

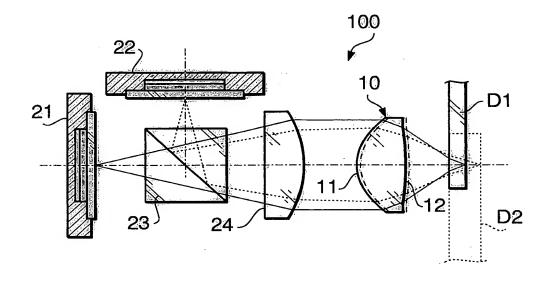


FIG.16

